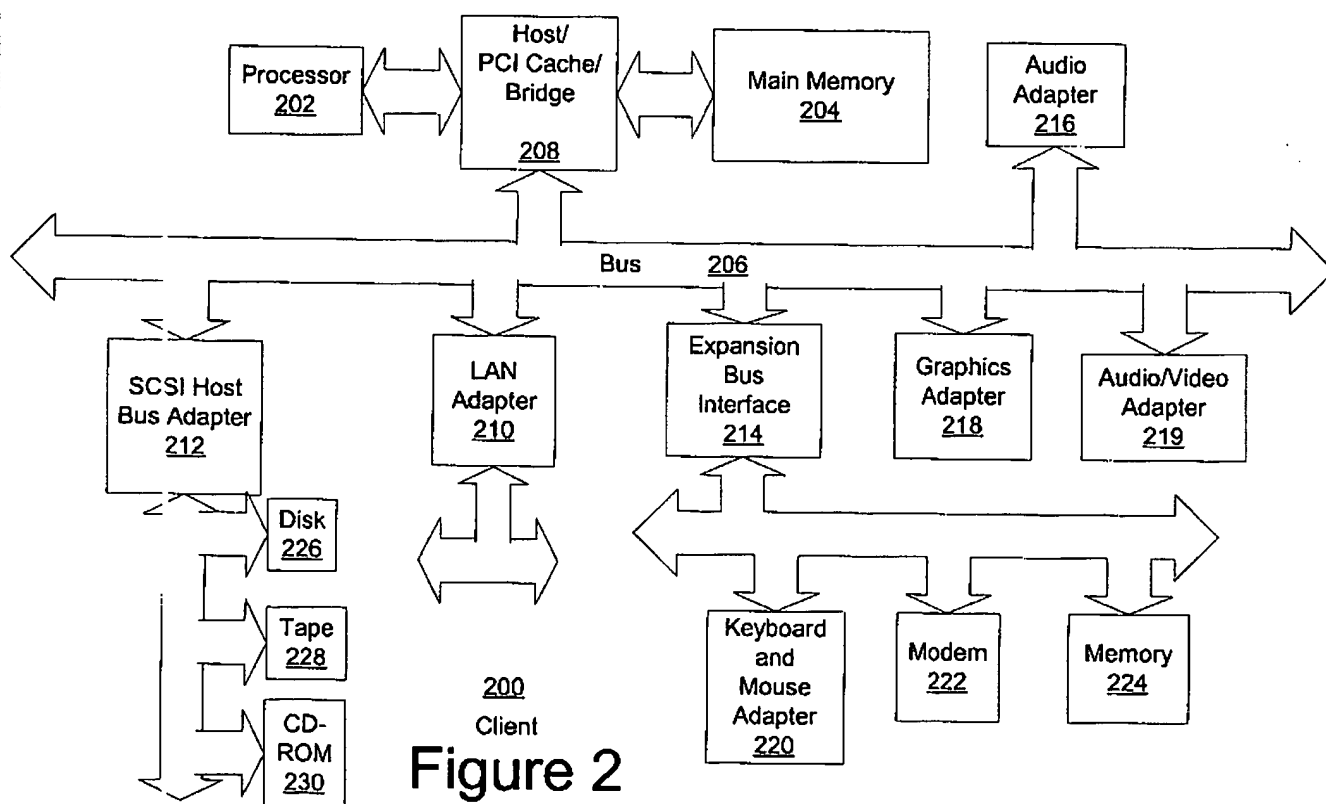
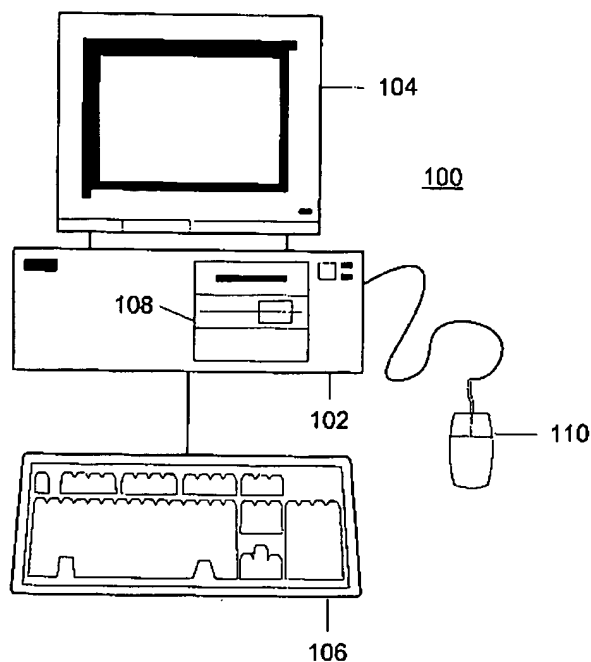
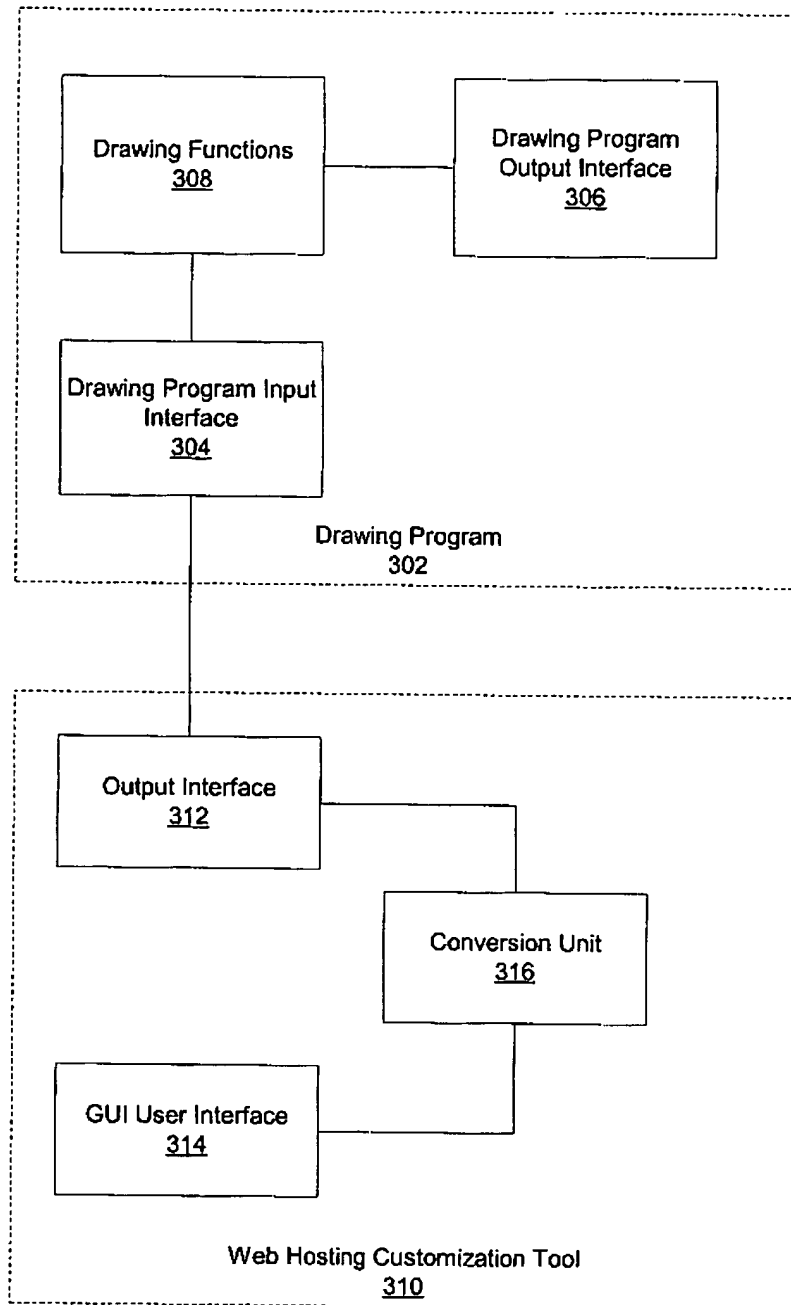


**Figure 1**

Longnecker et al.  
 AUS920010641US1  
 Universal Server Farm Mass Custom  
 Design Tool  
 Page 1 of 21





**Figure 3**

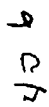
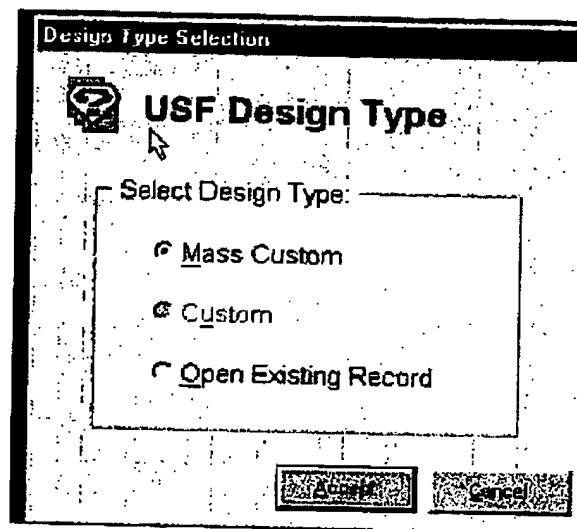


Figure 4  
Longnecker et al.  
AUS920010641US1  
Universal Server Farm Mass  
Custom Design Tei  
Page 3 of 21

10004948-12504



500

BEST AVAILABLE COPY

## Figure 5A

Longnecker et al.  
AUS920010641US1  
Universal Server Farm Mass Custom  
Design Tool  
Page 4 of 21

105021-840001

BEST AVAILABLE COPY

IBM DSF Solution Design Tool Version: 0.9

## Customer Information

Step 2 of 12

Customer Name			
Address			
City			
State		Zip	
Customer Contact 1		Phone	
Customer Contact 2		Phone	
IBM Business Partner Name	Kurt Longnecker		IBM Business Partner

Navigation: [Back] [Previous] [Next] [Forward] [Cancel] [OK]

502

Figure 5B

Longnecker et al.  
AUS920010641US1  
Universal Server Farm Mass Custom  
Design Tool  
Page 5 of 21

IBM UDF Solution Design Tool Version: 0.9

# Geographic Load Balancing

Step 3 of 12

Selected Web Location: SLB/BS

☒ One Location (Default)

☐ Multiple Locations

Enter the Name of Geographic Location:

Default: 2 Locations

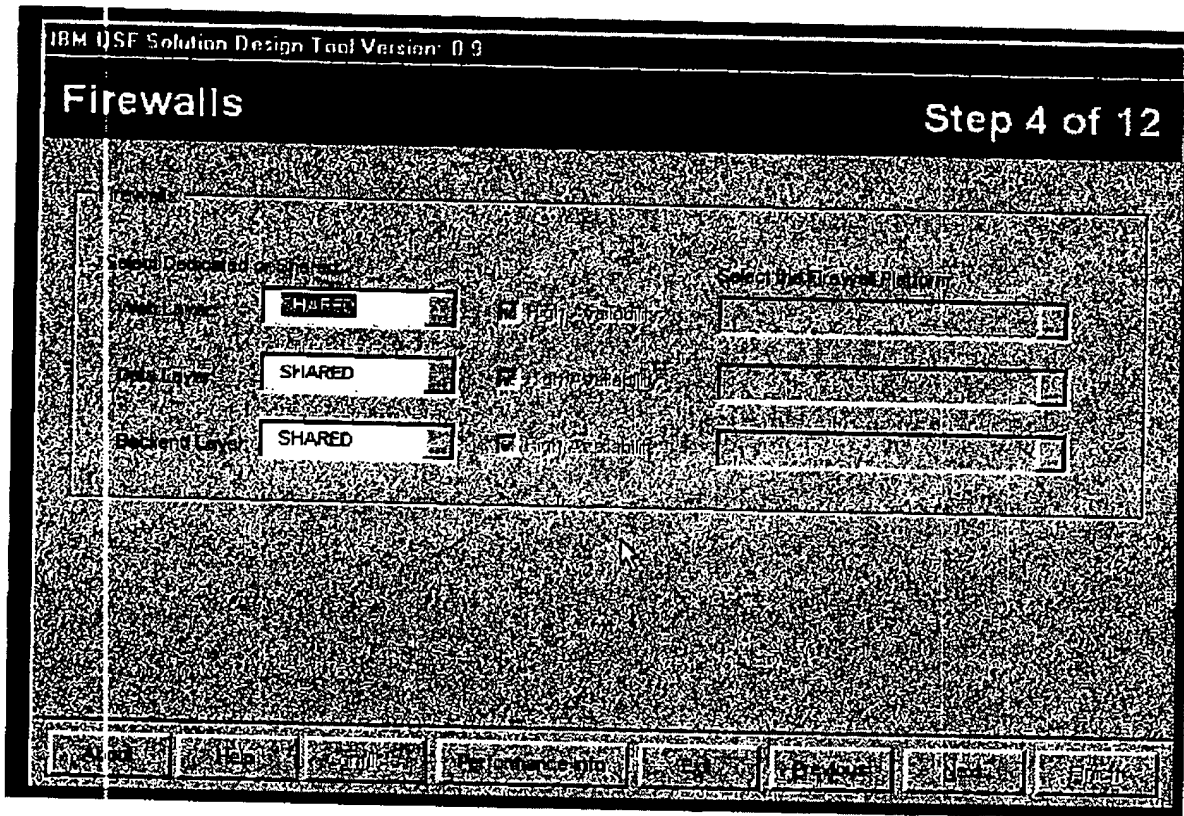
Help

**BEST AVAILABLE COPY**

504

### Figure 5C

Longnecker et al.  
AUS920010641US1  
Universal Server Farm Mass Custom  
Design Tool  
Page 6 of 21



506

Figure 5D

Longnecker et al.  
AUS920010641US1  
Universal Server Farm Mass Custom  
Design Tool  
Page 7 of 21



Longnecker et al.  
AUS920010641US1  
Universal Server Farm Mass Custom  
Design Tool  
Page 8 of 21



10004943 120501

REST AVAILABLE COPY

IBM USE Solution Design Tool Version: 0.9

## Web Servers

Step 6 of 12

Server Name: [Text Box]

Server ID: [Text Box]

Select Software/Platform:

- ☐ Netscape Enterprise
- ☐ Lotus Domino Server
- ☐ Apache (Std. Ed., IBM)
- ☐ Apache (Advanced)

IBM Availability Disk Array (for Selected Server): [Text Box]

Buttons: [Back] [Next] [Cancel] [Help] [Performance] [Edit] [Delete] [Add]

510

Figure 5F

Longnecker et al.  
AUS920010641US1  
Universal Server Farm Mass Custom  
Design Tool  
Page 9 of 21

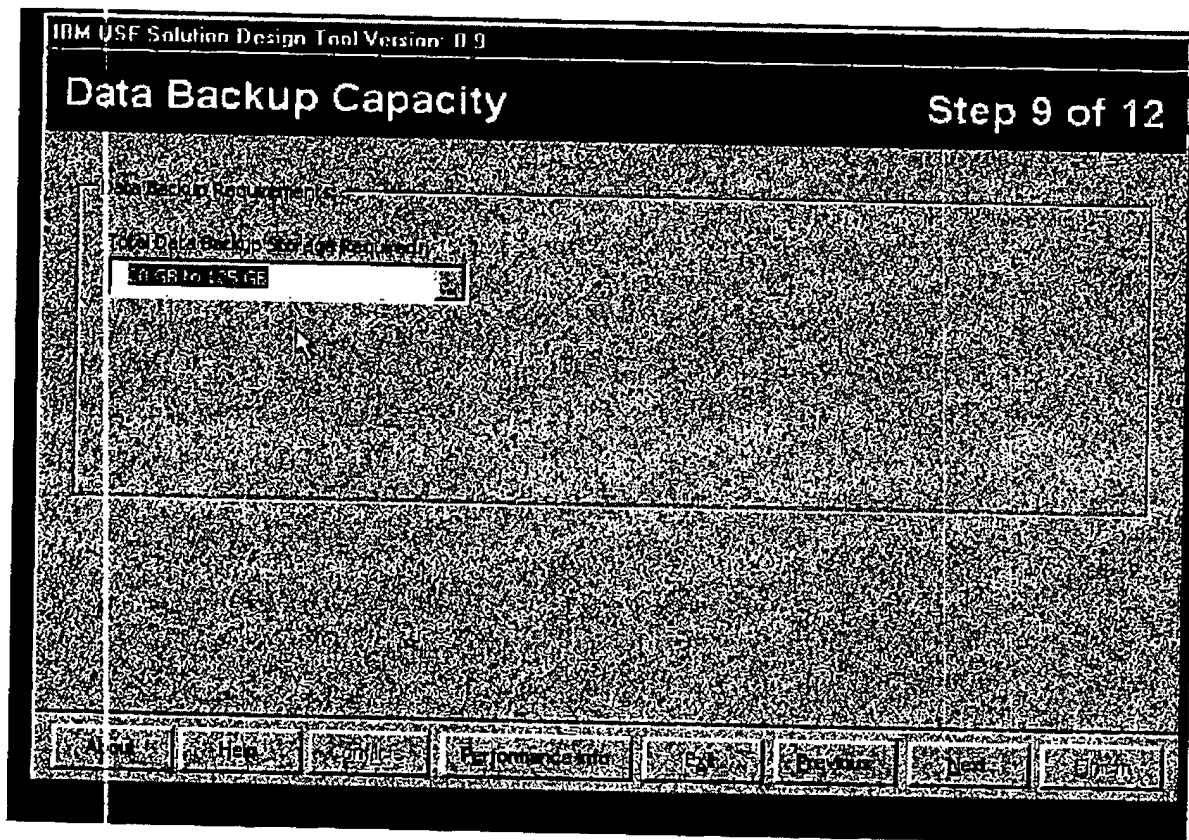
512

Longnecker et al.  
AUS920010641US1  
Universal Server Farm Mass Custom  
Design Tool  
Page 10 of 21



Longnecker et al.  
AUS920010641US1  
Universal Server Farm Mass Custom  
Design Tool  
Page 11 of 21

10004948 120501



BEST AVAILABLE COPY

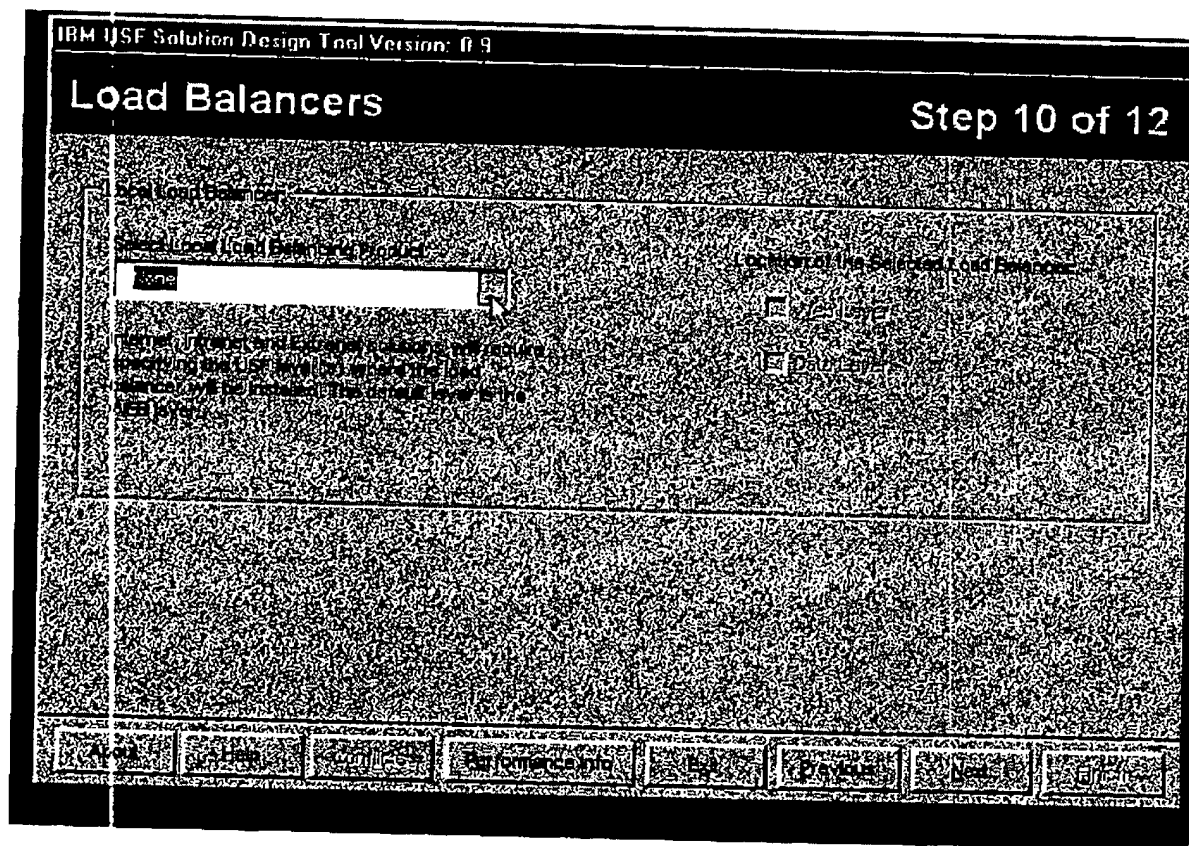
516

## Figure 51

Longnecker et al.  
AUS920010641US1  
Universal Server Farm Mass Custom  
Design Tool  
Page 12 of 21

1050221 84640001

BEST AVAILABLE COPY



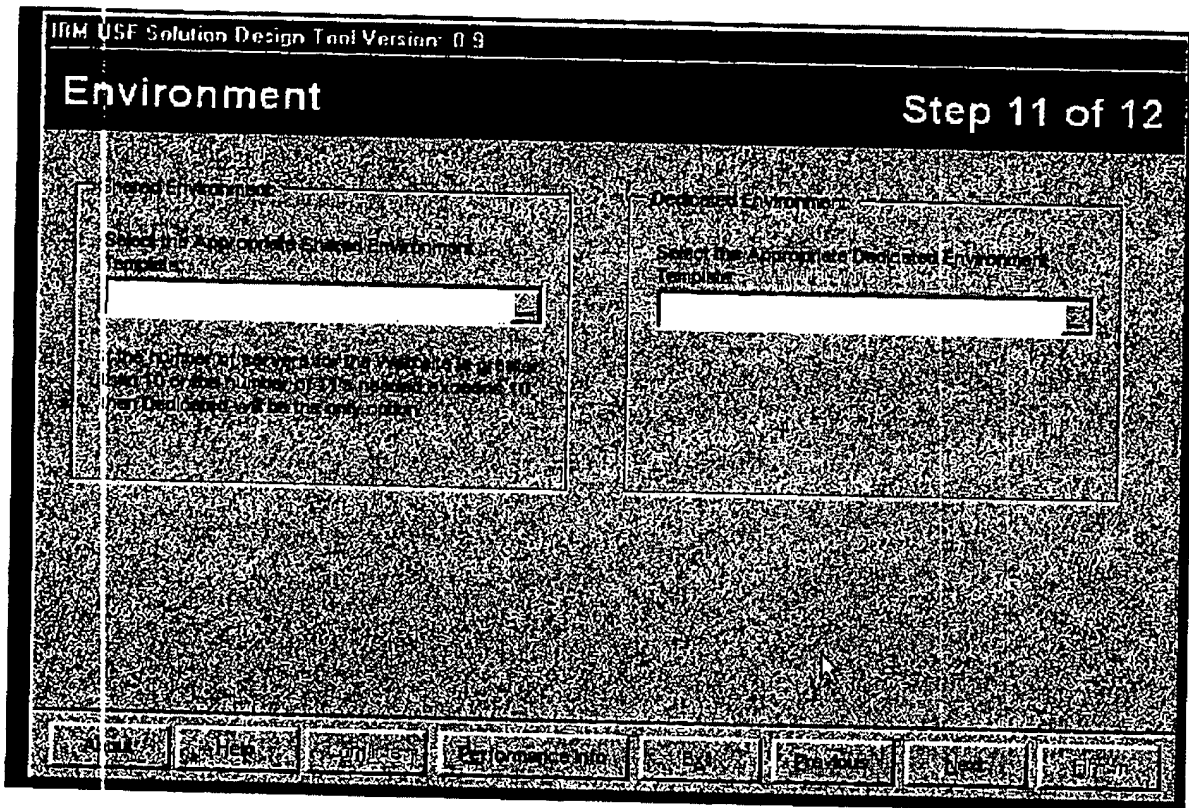
518

Figure 5J

Longnecker et al.  
AUS920010641US1  
Universal Server Farm Mass Custom  
Design Tool  
Page 13 of 21

10004948 120501

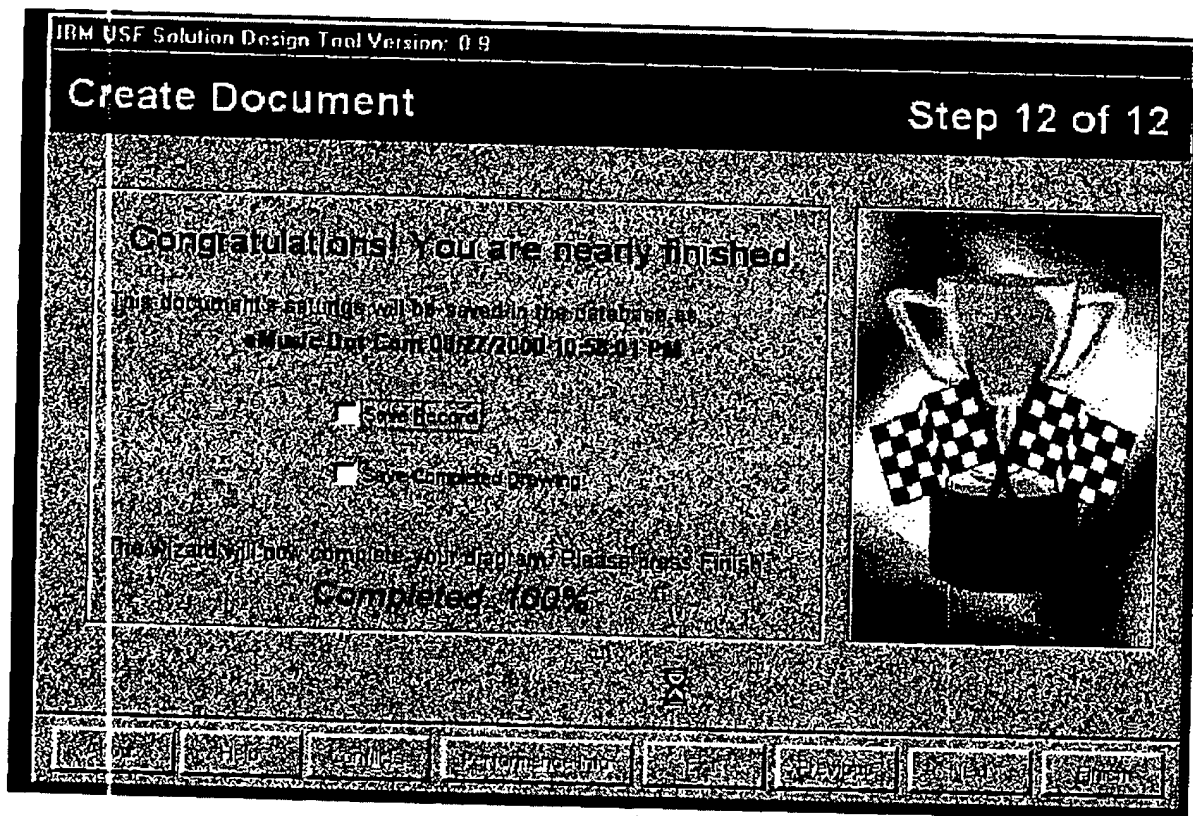
BEST AVAILABLE COPY



520

## Figure 5K

Longnecker et al.  
AUS920010641US1  
Universal Server Farm Mass Custom  
Design Tool  
Page 14 of 21



522

Figure 5L

Longnecker et al.  
AUS920010641US1  
Universal Server Farm Mass Custom  
Design Tool  
Page 15 of 21



CONFIDENTIAL


DEST AVAIL ARI F COPY

Universal Server Farm Design Tool Version 3.3

## Create Document

Step 12 of 12


### Budget and Planning Estimate


 **Budget and Planning Estimate**

The following estimates are for planning purposes only. The actual prices will be prepared upon a design review of this set of requirements and will vary from the estimates shown.

One-Time Fee:	\$ 0.00
Monthly Recurring Fee:	\$ 0.00

( based on a 36-month contract )





522

524

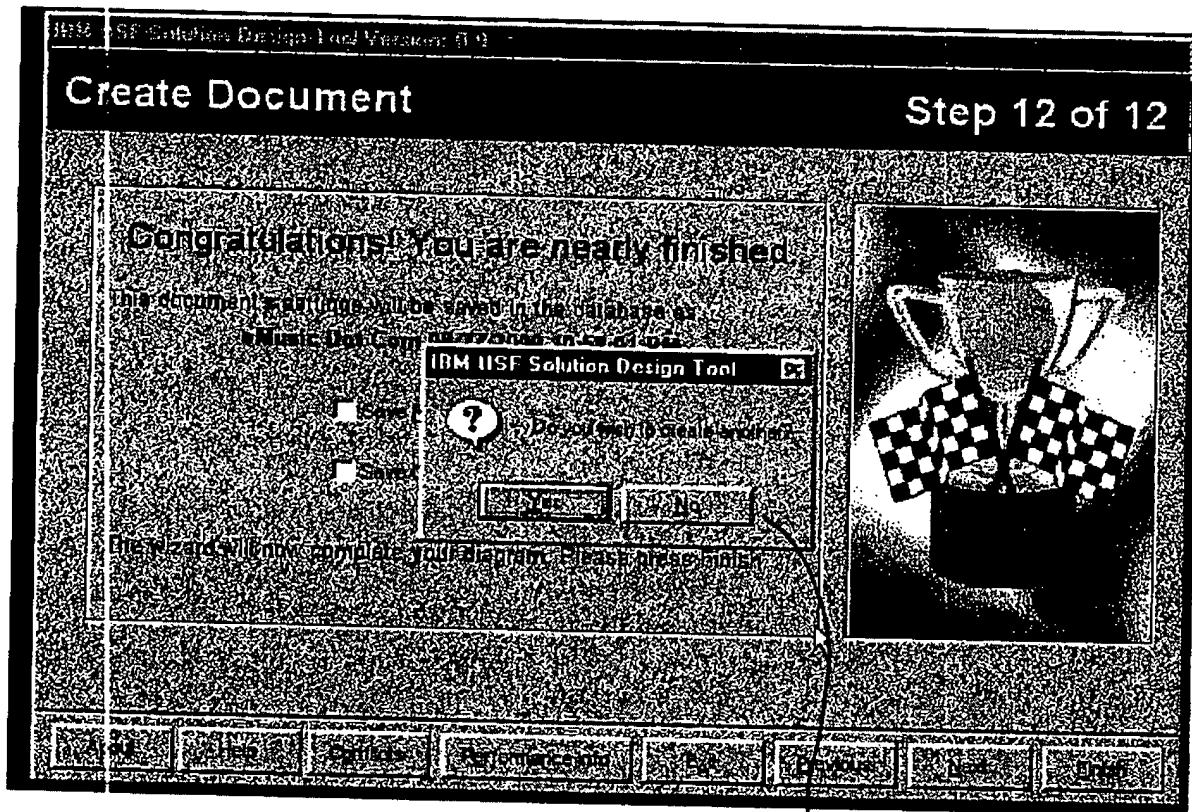
Figure 5M

Longnecker et al.  
AUS920010841US1  
Universal Server Farm Mass Custom  
Design Tool  
Page 16 of 21



10004949 120501

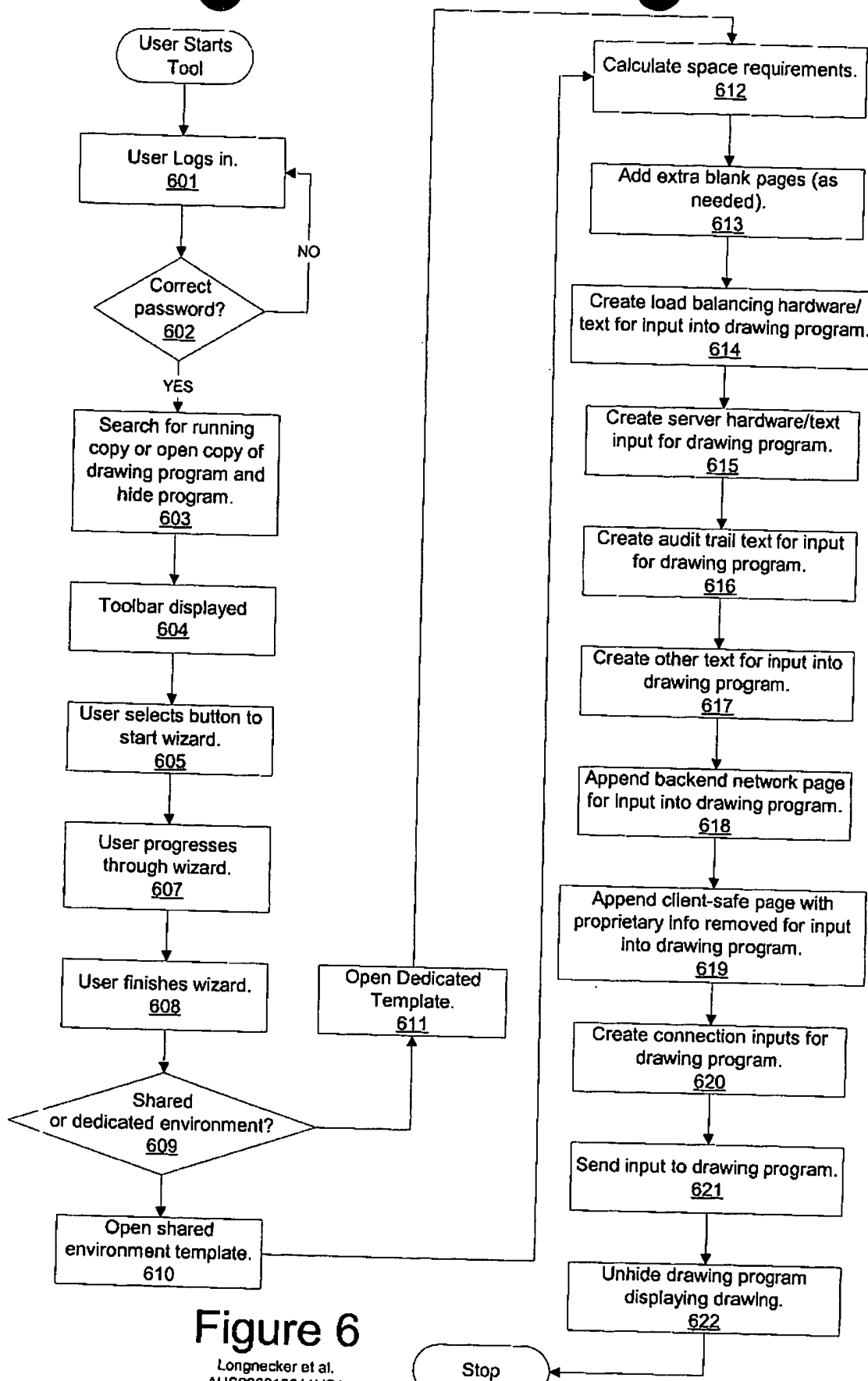
RECT AVAL ADI E CORV



522

526

Figure 5N



**Figure 6**

```

WAN Bandwidth      28.512 CR/71
# of Interfaces     2
LAN Address/eth     100BaseT (100 Mbps) except
                    for backward compatibility
Firewall            1
# of Layers          5
Layer 1: DEDICATED VRAP
Layer 2: DEDICATED VRAP
Layer 3: DEDICATED VRAP
Layer 4: DEDICATED VRAP
Layer 5: SHARED

```

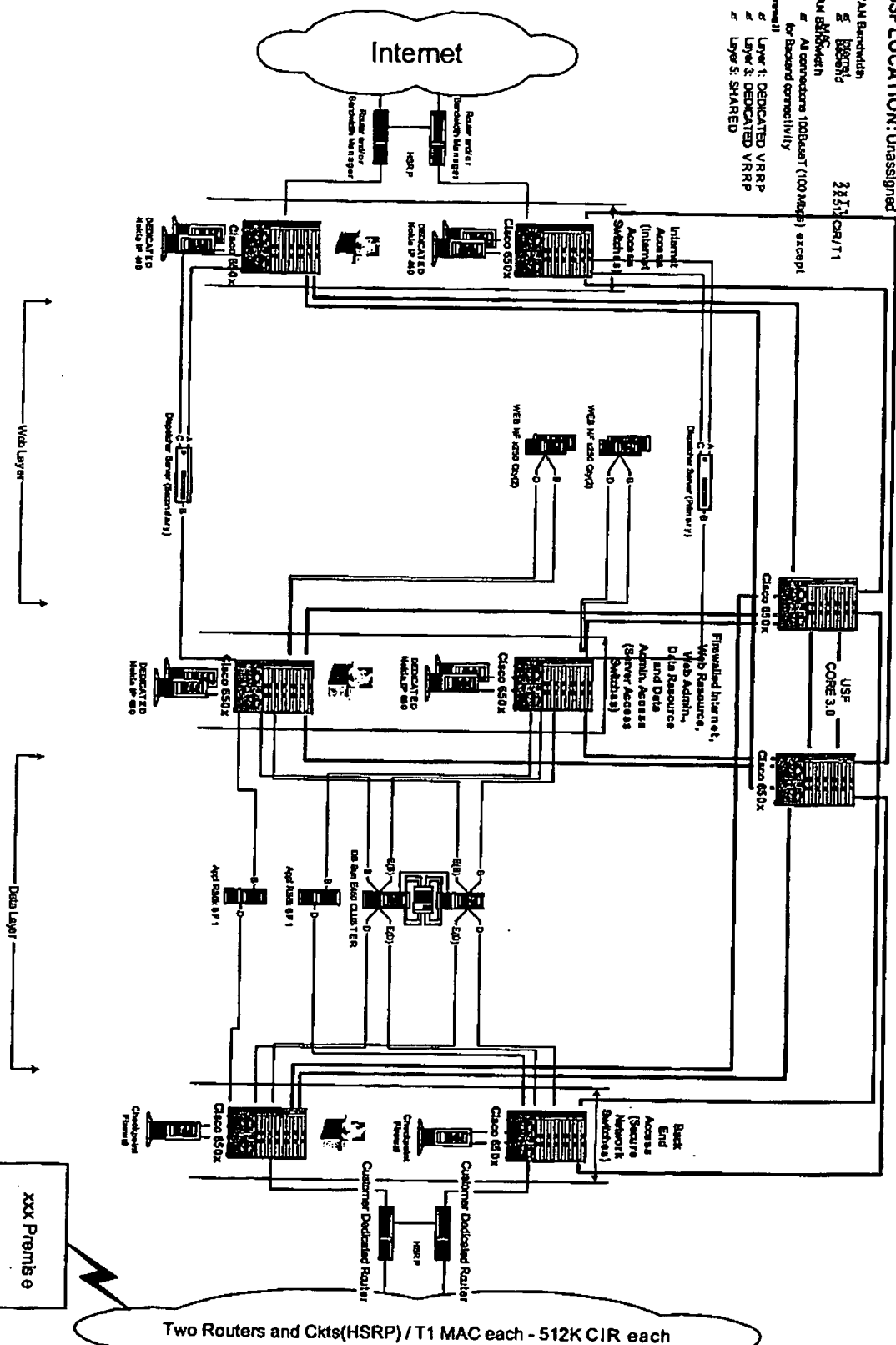


Figure 7  
Longnecker et al.  
AUS920010641US1  
Universal Server Farm Mass Custom Design Tool  
Page 19 of 21

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Dispatcher Server (Qty 2)  
key file == NET64060J03

Hardware  
IBM RS6000 43P Model 150  
1x 375kHz 604x PowerPC Processor  
1x 256 MB RAM main memory (2x 256 MB DIMM)  
2x 9 GB 5400 RPM Hard Disk  
1x Base Operating System & BOS Mirror  
1x Base Bay Disk Drive Mounting Kit  
3x 10/100 Mbps Ethernet NIC Adapters  
1x Power Supply Connection

Software  
\*NX Base Operating System (BOS) (current build)  
\*WebSphere Edge Server Software Package  
\*Controlling Security Network Dispatcher Program

Network  
A Adapter: (10BaseT) External INTERNET (100)  
B Adapter: (10BaseT) WEB to DB Layer + User Admin (300)  
C Adapter: (10BaseT) Private VLAN (200)

Web Layer Firewall Server (Qty 2)  
key file == FWL64450.001

Hardware  
\*Node IP400 Base System  
1x Intel Processor  
1x 256 MB RAM main memory  
1x 20 GB 5400 RPM Hard Drive  
3x Four Port 10/100 Ethernet CPCI Interface Card  
1x Ethernet Cable (for crossover)  
1x Power Supply  
1x Power Supply Connection

Software  
\*TFSO software (operating system & Checkpoint)  
\*Check Point Firewall-1 Enterprise Security Suite  
\*Access Control  
\*Authentication  
\*Encryption  
\*Address Translation  
\*Content Security  
\*Connection Control  
\*Enterprise Management

Network Connections  
A Adapter: External INTERNET (100)  
J Adapter: Firewall Logging (18)  
K Adapter: Heartbeat (0)  
L Adapter: Firewall to Web E (300)  
M Adapter: Firewall to Data B (300)  
Q Adapter: Firewall Tool Resources (18)

Virtual Routing Redundancy Protocol is used for failover.

Figure 8A  
Longnecker et al.  
AUS920010641US1  
Universal Server Farm Mass  
Custom Design Tool  
Page 30 of 21

Data Base Server MED CLUSTER (Qty 1)  
 shown as = 1st time EXP200 configured  
 key file = ADBSCM80J01

Hardware  
 \*Sun E450 Server (Qty 2 of these servers)  
 \*4 x 400 MHz cpu  
 \*3072 MByte main memory  
 \*2 x 18 GByte Hard Disk  
 \*Base Operating System & BOS mirror  
 \*2 x 30 GByte Hard Disk (Cluster Software Usage)  
 \*ADBSM Backup System & mirror  
 \*1 x 12/24 GByte 4mm DDS-3 Internal Tape Drive  
 \*4 x 10/100 Mbps Ethernet NICs using 2 Quad Cards  
 \*2 x Power Supply Connection for E450

Disk Expansion Unit w/RAID (Qty 2 of these units)  
 \*4 x 18 GByte Hard Disk (per unit)  
 \*2 x Power Supply Connection for Disk Exp Unit  
 \*Total Hard Disk Storage for client data = 8 x 18 GB  
 \*4 x 18 GByte available with mirroring  
 \*Administrative Workstations Sun Ultra 5 w/mirror  
 \*with Terminal Concentrator Kit for sharing  
 \*1 x Power Supply Connection

Software  
 \*Sun Solaris Operating System (BOS) [current build]  
 \*Sun Cluster Software & Documentation  
 \*Sun Veritas File System Software  
 \*Sun Veritas Volume Manager Software  
 \*to be specified  
 \*Other software is customer supplied software

Network Connections  
 B (100BaseT) WEB to DB Layer + USF Admin (300)  
 D (100BaseT) External BACKEND (400)  
 EB (100BaseT) Failover for Adapter (B) (300)  
 ED (100BaseT) Failover for Adapter (D) (400)

Application Server (Qty 2)  
 shown as = Appl R50x 6F1  
 key file = ADBSMDS0J01

Hardware  
 \*RS5000 6F1 MED APP or MED DB  
 \*2 x 400 MHz cpu  
 \*4096 MByte main memory  
 \*1 x PCI Dual Channel Ultra2 SCSI Adapter  
 \*2 x 9 GByte Hard Disk  
 \*Base Operating System & BOS mirror  
 \*1 x 4-Channel Ultra3 SCSI PCI RAID Adapter  
 \*8 x 18 GByte Hard Disk (client data)  
 \*4 x 10/100 Mbps Ethernet NIC's  
 \*2 x Power Supply Connection

Software  
 \*AUX Base Operating System (BOS) [current build]  
 \*Advanced Edul WebSphere Appl. Server  
 \*Other software is customer supplied software

Network Connections  
 B (100BaseT) WEB to DB Layer + USF Admin (300)  
 D (100BaseT) External BACKEND (400)

Figure 8B  
 Longnecker et al.  
 AUS920010641US1  
 Universal Server Farm Mass  
 Custom Design Tool  
 Page 21 of 21

Administration Workstation	
Hardware	
* Sun Ultra Enterprise Ultra 10 Model 440	
* 1 x 440MHz UltraSPARC-III	
* 256MB DRAM	
* 2 x 8.1GB 7200 RPM Hard Disk (EIDE)	
* 1 x 17in Monitor	
Software	
* Solaris 2.6	
Network	
* Adapter (Integrated):	USF Admin (500)
Other Hardware	
* 1 x Terminal Concentrator Kit	
Full Over Scheme:	
* Server 1 Disk over to server #2	

EXP200 Notes:  
 You may need to include the following parts in your EXP200 configuration:  
 \* 03K0311 IBM Netfinity 4.2M Ultra2 SCSI Cable  
 \* 37L6957 Netray EXP200 Rack-to-Tower Conversion Kit  
 \* 37L0075 Netray EXP200 350W Redundant Power Supply